

# HT330A

## Data Sheet Genelec HT330A Three-Way Active Loudspeaker

# GENELEC®



The Genelec HT330A is a powerful three-way active loudspeaker designed for very large sized high quality Home Theater systems.

Designed as an active system, it consists of a large loudspeaker enclosure (320 liters) with multiple drivers and a standard 7 units 19" equipment rack which contains active crossover filters, three channel power amplifiers and driver protection circuitry. This equipment rack should be sufficiently ventilated to prevent excessive overheating. Such an active system design allows the amplifiers and the drivers to be calibrated as a single unit in the factory. This eliminates the effects of component tolerances and ensures consistent quality and long term reliability.

The HT330A system excels when flush-mounted into a solid wall structure. The unique Directivity Control Waveguide™ (DCW™) Technology developed by Genelec provides extremely stable and accurate imaging even in difficult and large acoustic environments. It also results in perfect phase and delay uniformity at the crossover frequency together with a very

smooth frequency balance that provides outstanding soundstage definition. Furthermore, versatile and precise crossover controls allow for accurate matching of the loudspeaker systems to different room acoustic conditions.

The low frequencies are reproduced by two long throw 385 mm (15") bass drivers featuring a -3dB point at 29 Hz. The midrange and high frequencies are reproduced respectively by a Genelec proprietary 130 mm (5") midrange cone driver and a 25 mm (1") metal dome HF driver.

Midrange and high frequency drivers are mounted in a proprietary Genelec Directivity Control Waveguide™ which can be rotated through +/- 90 degree for either horizontal or vertical mounting. All drivers are magnetically shielded.

The amplifier unit contains an active crossover. This is the ideal method for dividing the input signal between the driver units, allowing the overall response of the system to be optimized to an extent impossible with a passive system. Variable input sensitivity and XLR line level input connector provide easy connection

and accurate level matching to the pre-amplifier or decoder. The bass, midrange and treble amplifiers produce 2 x 400 W, 350 W and 120 W of short term power. The amplifiers are designed to operate at very low THD and IM distortion values and are capable of driving a stereo system to peak output levels in excess of 126 dB SPL at 2 m. The electronics have been carefully designed to ensure the highest subjective sound quality currently possible.

The amplification unit incorporates special circuitry for driver overload and amplifier thermal protection. The power mode which switches the unit between "Standby" and "On" mode can be changed with a 12 V trigger voltage. An LED indicator on the DCW™ plate displays the system status. A standard 10 m cable is supplied for the loudspeaker connection. Longer lengths are available upon special order.

Contact your local Genelec dealer for an audition and see Genelec's Home Theater website [www.genelec-ht.com](http://www.genelec-ht.com) for more information on Genelec's Home Theater loudspeaker line.

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## SYSTEM SPECIFICATIONS

	HT330A
Lower cut-off frequency, -3 dB Upper cut-off frequency, -3 dB Free field frequency response of system	≤29 Hz ≥20 kHz 31 Hz - 20 kHz (±2.5 dB)
Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz	@1 m ≥126 dB SPL
Maximum long term RMS acoustic output in same conditions with IEC-weighted noise (limited by driver unit protection circuit)	@ 1 m ≥120 dB SPL
Maximum peak acoustic output per pair with music materia	@ 2 m ≥130 dB
Self generated noise level in free field @ 2 m on axis	≤ 15 dBA
Harmonic distortion at 100 dB SPL at 1m on axis:	freq. 50...200 Hz <1% freq. 200...10k Hz <0.5%
Drivers Bass Midrange Treble All drivers are magnetically shielded	2 x 385 mm (15") cone 130 mm (5") cone 25 mm (1") metal dome
Weight Loudspeaker Amplifier	115 kg (253 lb) 30 kg (66 lb)
Loudspeaker dimensions Height Width Depth*	820 mm (32 <sup>1</sup> / <sub>8</sub> " ) 1050 mm (39 <sup>3</sup> / <sub>8</sub> " ) 550 mm (21 <sup>7</sup> / <sub>8</sub> " )
Amplifier dimensions Height Width Depth*	310 mm (12 <sup>3</sup> / <sub>16</sub> " ) 483 mm (19") 250 mm (9 <sup>13</sup> / <sub>16</sub> " )
	* Note that the cable connectors require additional 100 mm (4") of space behind the loudspeaker cabinet and the amplifier.

## CROSSOVER SECTION

	HT330A
Input connector XLR female	pin 1 gnd pin 2 + pin 3 -
Input impedance	10 kOhm balanced
Input level for 100 dB SPL output @1m	variable from +6 to -6 dBu
Input level for maximum short term output	variable from +32 to +20 dBu for 126 dB SPL @ 1 m
Subsonic filter	18 dB/octave below 25 Hz
Ultrasonic filter	12 dB/octave above 22 kHz
Crossover frequency Bass/Mid Mid/Treble	400 Hz 3.2 kHz
Crossover acoustical slopes	24 - 32 dB/octave
Crossover level control operating range in 1 dB steps Bass Mid Treble	from 0 to -6 dB & MUTE from 0 to -6 dB & MUTE from 0 to -6 dB & MUTE
Bass roll-off control in 2 dB steps	from 0 to -8 dB @ 29 Hz
Bass tilt control in 2 dB steps	from 0 to -8 dB @ 50 Hz
	The 'CAL' position is with all tone controls set to 'off' and input sensitivity control to maximum.

## AMPLIFIER SECTION

	HT330A
Bass amplifier short term output power	2 x 400 W (8 Ohm load))
Midrange amplifier short term output power with an 8 Ohm load	350 W
Treble amplifier short term output power with an 8 Ohm load	120 W
	Long term output power is limited by driver unit protection circuitry.
Slew rate	80 V/μs
Amplifier system distortion at nominal output THD SMPTE-IM CCIF-IM DIM 100	≤0.05% ≤0.05% ≤0.05% ≤0.05%
Signal to Noise ratio, referred to full output Bass Midrange Treble	≥100 dB ≥100 dB ≥100 dB
Mains voltage	100/200V or 115/230V
Voltage operating range	nominal ±10%
Power consumption Idle Full output	70 W 1000 W
Remote control	Remote controlled Standby/On switching by 12 V trigger